

A New Draconettid, *Centrodraco otohime*, from the Kyushu-Palau Ridge

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Abstract A new draconettid, *Centrodraco otohime*, is described. This species was taken from the Kyushu-Palau Ridge at depths ranging from 330 to 360 m. It is characterized by having short and stout dorsal spines except the 1st dorsal spine of the male and many vermicular yellow spots on both dorsal and lateral sides of the body.

A new species of the Draconettidae was collected during a survey of demersal fish made on the Kyushu-Palau Ridge in the Pacific Ocean at depths between 330 and 360 m from Feb. 13 to Nov. 20, 1978 by the Nansei Regional Fisheries Research Laboratory. This species was captured with many specimens of *Ariomma lurida* Jordan et Fowler and *Dipterygonotus leucogrammicus* (Bleeker), etc.

We describe this new species on the basis of 5 males and 2 females.

Centrodraco otohime, sp. nov.

(New Japanese name: Otohime-numeri)

(Figs. 1~3)

Holotype: HUMZ (Laboratory of Marine Zoology, Faculty of Fisheries, Hokkaido University) 75058, a male, 110.8 mm in standard length, 26°46.0'N, 135°20.0'E~26°44.0'N, 135°24.3'E, at 342 m, Feb. 13, 1978.

Paratypes: HUMZ 79194, 79196~79198, 2 males and 2 females, 67.9~124.6 mm, 26°46.9'N, 135°20.0'E~26°46.2'N, 135°22.3'E, at 360 m, Nov. 17, 1978. HUMZ 80237, a male, 105.5 mm, 26°05.1'N, 135°49.4'E~26°10.8'N, 135°45.7'E, at 360 m, Nov. 20, 1978. HUMZ 80295, a male, 103.6 mm, 26°46.0'N, 135°21.6'E~26°45.0'N, 135°20.9'E, at 330~350 m, Nov. 18, 1978.

Diagnosis

This species differs from other draconettids in having many vermicular yellow spots on dorsal and lateral sides of the body.

Description

Counts and proportional measurements are

shown in Table 1.

Body rounded and elongate. Snout pointed. Eye large. Interorbital space very narrow. Both opercle and subopercle with strong retrose spines; the interspace between them covered by a soft membrane. Upper jaw protractile. Posterior end of maxillary hardly extends to the anterior border of eye. Teeth on both upper and lower jaws villiform in broad bands. Lateral line grooved, interrupted and with some branches; the anterior part running along the dorsal side of body from the upper end of gill-cover to below 8th or 10th dorsal ray, and the posterior one running along the mid-lateral axis from below 10th or 11th dorsal ray to the base of caudal fin (Fig. 2). Cephalic lateral line system developed; supraorbital canal reaching to anterior part of the interorbital area; postocular commissure reaching to the uppermost end of gill-cover; anterior infraorbital canal on the dorsoposterior part of maxillary and posterior infraorbital canal reaching to the middle part of eye; lines of sensory pores on each side of snout, cheek, ventral part of the head, occipital region and preopercular region.

First dorsal fin begins above the end of gill-cover; dorsal spines short and stout but 1st dorsal spine elongate in males. Dorsal rays unbranched except the last; the anterior branch of last ray bifurcate; dorsal rays produced into filaments except the last in males, but not in females. Anal fin begins at a perpendicular through the 3rd dorsal ray; all of anal fin rays branched. Pectoral fin rounded, and reaching to the 4th dorsal ray. Pelvic fin falcate and reaching to the 1st anal ray.

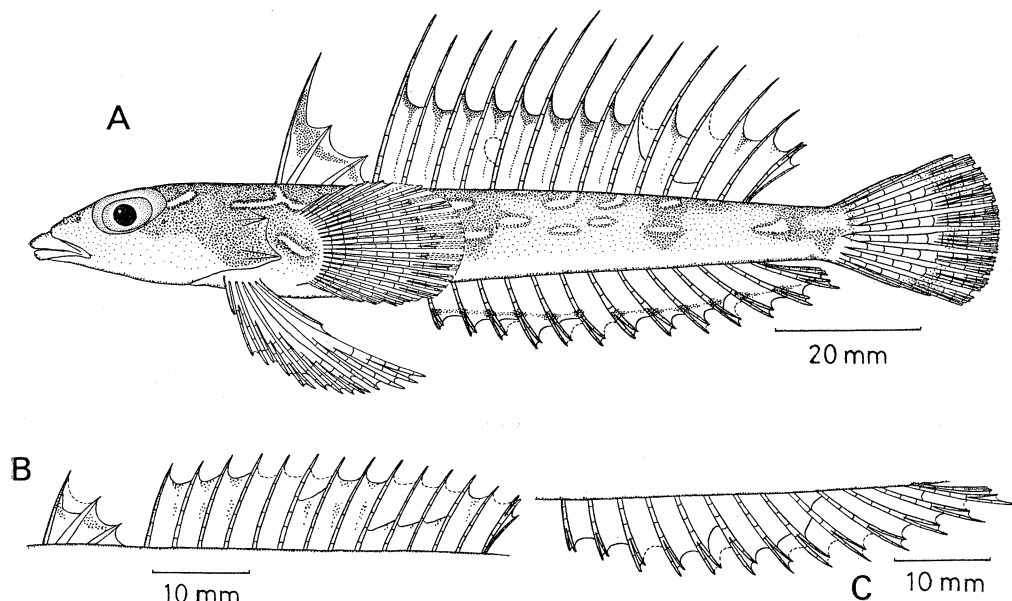


Fig. 1. A: Lateral view of the holotype of *Centrodraco otohime*, HUMZ 75058, male. B: 1st and 2nd dorsal fins of the paratype, HUMZ 79198, female. C: Anal fin of the paratype, HUMZ 79197, female.

Table 1. Counts and proportional measurements, expressed in hundreds of standard length, of type specimens of *Centrodraco otohime*.

	Holotype		Paratypes				
Cat. no. (HUMZ)	75058	79194	79196	80237	80295	79197	79198
Sex	male	male	male	male	male	female	female
Standard length (mm)	110.8	124.6	67.9	105.5	103.6	92.5	80.2
Dorsal fin rays	III, 14	III, 14	III, 14	III, 14	III, 14	III, 14	III, 14
Pectoral fin rays	24	23	23	23	24	22	23
Pelvic fin rays	I, 5	I, 5	I, 5	I, 5	I, 5	I, 5	I, 5
Anal fin rays	13	13	13	13	13	13	13
Caudal fin rays	ii+8+ii	ii+8+ii	ii+8+ii	ii+8+ii	ii+8+ii	ii+8+ii	ii+8+ii
Vertebræ	23	23	23	23	23	23	23
Body width	15.1	16.0	17.1	15.4	15.2	14.9	17.1
Body depth	14.4	14.8	14.0	13.2	15.4	14.5	15.0
Caudal peduncle depth	6.1	5.9	6.2	6.1	5.8	5.4	5.9
Predorsal length	31.4	33.0	33.6	29.6	32.8	34.2	33.9
Caudal fin length	21.5	22.4	23.3	20.5	22.3	21.1	20.3
Head length	30.3	31.1	31.1	29.1	32.0	30.7	31.2
Eye diameter	10.3	10.9	11.9	10.0	11.8	10.6	12.7
Snout length	8.7	8.5	9.3	7.6	9.4	8.1	8.0
Upper jaw length	8.5	8.7	8.5	7.8	8.7	8.3	8.9
Interorbital width	2.1	1.3	1.3	0.9	1.2	0.9	0.7
1st dorsal spine length	17.3	—	13.7	20.0	15.4	10.3	10.1
2nd dorsal spine length	8.7	6.5	8.4	8.0	8.6	7.5	7.5
3rd dorsal spine length	5.9	4.8	4.3	4.9	5.3	4.4	4.1
1st dorsal ray length	22.8	—	15.3	23.8	31.4	11.9	11.5
Last dorsal ray length	10.1	9.9	8.7	10.7	11.4	8.0	8.7
1st anal ray length	5.8	6.4	6.9	6.2	5.9	5.9	5.2
Last anal ray length	11.7	13.2	13.3	12.8	12.9	13.1	12.2
Pectoral ray length	—	21.1	22.7	23.0	24.3	23.4	22.9
Pelvic ray length	28.2	30.3	33.9	27.5	28.6	29.9	29.9

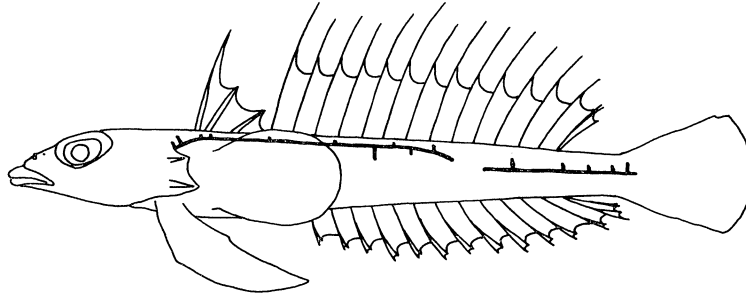


Fig. 2. Lateral lines of the holotype, expressed as thick solid lines, HUMZ 75058.

Caudal fin rounded.

Color in fresh specimens (from the holotype): Body rose-pink above, and light and creamy or rather whitish below; 3 transverse broad wine-red bands on dorsal and lateral sides of the body behind the pectoral fin. Head wine-red above, light and creamy below. Approximately 3 rows of longitudinal vermicular yellow marks on occipital region, and an oblique yellow mark on pectoral base. First dorsal fin pinkish anteriorly, with a yellow band distally. Second dorsal fin membrane with dark margin distally and with an elongated yellow spot ventroposteriorly. Anal fin white with a pinkish line parallel to the body axis near the margin. Pectoral fin rose-pink. Pelvic fin white; only last rays slightly pinkish. Caudal fin yellow with transparent margin.

Color in isopropyl alcohol: Body dark with several broad bands above and whitish below. Yellow marks in life discolored and changed to dusky circles. A pinkish line on anal fin changed to dark brown. But anal fin in females transparent.

Remarks

Regan (1904) described *Draconetta acanthopoma* from the North Atlantic as the 2nd species of Draconettidae. But later he (1913) made a genus, *Centrodraco*, for the species *D. acanthopoma* by reason of its short and stout dorsal spines. Our examination of the specimens deposited in Kyoto University proved that the type species of the genus *Draconetta*, *D. xenica* Jordan et Fowler, had long and soft dorsal spines. We regard this difference as a distance between genera, and so we think *Centrodraco* is valid. We put, therefore, our new species into *Centrodraco*.

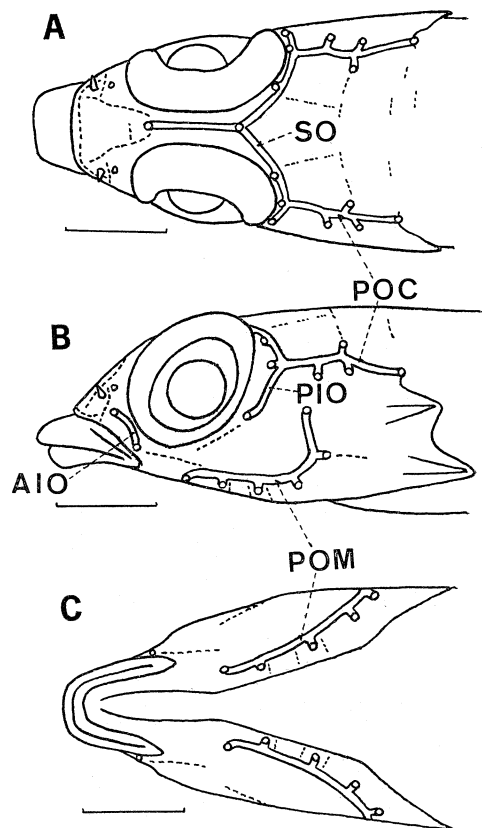


Fig. 3. Cephalic lateral line system of the paratype, HUMZ 79196, male. A: Dorsal view. B: Lateral view. C: Ventral view. AIO, anterior infraorbital canal; PIO, posterior infraorbital canal; POC, post-ocular commissure; POM, preoperculomandibular canal; SO, supraorbital canal. Broken lines showing the lines of sensory pores. Scales indicate 5 mm

However, *C. otohime* differs from *C. acanthopoma* in filamentous tip of the 1st dorsal spine and filamentous dorsal rays in males. *C. otohime* is closely related to *Draconetta oregona* Briggs et Berry and *Draconetta pseudoxenica* Kamohara in the characters of the 1st and 2nd dorsal fins but differs in coloration according to our examination of their specimens. We think therefore both *D. oregona* and *D. pseudoxenica* should also belong to *Centrodraco*. A revision of *Draconettidae* is now in progress by one of the authors (Nakabo).

The species name *otohime* is a name of the princess in an old Japanese fairy tale, Urashima Taro. She is the Princess of the Dragon Palace, Ryugu-jyo, on the sea bottom.

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Literature cited

- Briggs, J. C. and F. H. Berry. 1959. The *Draconettidae*-a review of the family with the description of a new species. *Copeia*, 1959(2): 123~133, figs. 1~7.
- Jordan, D. S. and H. W. Fowler. 1903. A review of the dragonets (*Callionymidae*) and related fishes of the waters of Japan. *Proc. U.S. Nat. Mus.*, 25(1305): 939~959, figs. 1~9.
- Kamohara, T. 1952. Revised descriptions of the offshore bottom-fishes of Prov. Tosa, Shikoku, Japan. *Repts. Kochi Univ., Nat. Sci.*, (3): 1~122, figs. 1~100.
- Regan, C. T. 1904. On the affinities of the genus *Draconetta*, with description of a new species. *Ann. Mag. Nat. Hist.*, ser. 7, 14: 130~131.
- Regan, C. T. 1913. The classification of the percoid fishes. *Ann. Mag. Nat. Hist.*, ser. 8, 12: 111~145.

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九州—バラオ海嶺より得られたイナカヌメリ科の1新種 *Centrodraco otohime*, オトヒメヌメリ (新称)

中坊徹次・山本栄一

九州—バラオ海嶺の深さ 330~360 m の海山から、イナカヌメリ科 *Draconettidae* の1未記載種を得たので、*Centrodraco otohime*, オトヒメヌメリ (新称) として、ここに記載した。本種は体側上部に短くて細長い黄斑 (固定標本では白ぬきの褐色斑) が散在すること、第一背鰭棘が短くて硬いことにより他種と区別される。特に後者の特徴から、本種を Regan (1913) の *Centrodraco* 属に入れた。

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